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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,064	06/24/2003	Thomas A. Maufer	NVDA P000701	1631
26291 7590 12/29/2006 PATTERSON & SHERIDAN L.L.P. 595 SHREWSBURY AVE, STE 100 FIRST FLOOR SHREWSBURY, NJ 07702			EXAMINER AVELLINO, JOSEPH E	
			ART UNIT 2143	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary**Application No.**

10/606,064

Applicant(s)

MAUFER ET AL.

Examiner

Joseph E. Avelino

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-27 are presented for examination; claims 1, 11, 22, 23, 26, and 27 independent.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-27 are rejected under 35 U.S.C. 101 because the claimed invention does not produce, a concrete, tangible, and useful result, and therefore does not provide a practical application. See State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. Exemplary claim 1 merely recites reordering data. Nothing is being done with this data and it is not provided to any other entity. Therefore it does not satisfy the “tangible” or “useful” result as required. See MPEP 2106 regarding computer-related inventions. It is requested that a limitation of an action being done with the data (i.e. “outputting the data to a user, processor, etc.”) is requested to overcome this rejection. Correction is required.

Claim 26 is further rejected because the claim is not tangible. The claim recites “a signal-bearing medium” which can be construed as a “computer or communications medium, such as a computer or telephone network, including wireless communications”, (see ¶ 150) which is not tangible. Applicant's are requested to amend the claim such

that the medium is embodied as a "tangible" medium (i.e. storage media, see ¶ 150).

Correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Referring to claim 2, the claim recites "determining if the source and destination address information of the fragments matches". It is unable to be determined specifically 'what' the address information is supposed to match to. For examination purposes it is believed that the address information is supposed to match the other received fragments. Correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5, 10-13, and 18-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Internet Protocol, (RFC 791; DARPA Internet Program Protocol Specification; September 1981) (hereinafter RFC) in view of Malagrino et al. (USPN 6,714,985) (hereinafter Malagrino).

8. Referring to claim 1, RFC discloses a method for assembling a fragmented packet (i.e. reassembly) within a device comprising:

receiving fragments of the packet to the device (i.e. an inherent feature, otherwise the fragments would be unable to be reassembled);

sorting the fragments according to the packet and order of the fragments;

storing the fragments in association with the packet and in order (i.e. all the fragments associated with the packet or datagram would be stored in the same buffer) (pp. 27-29: 'An Example Reassembly Procedure': "the data from the fragment is placed in the data buffer according to its fragment offset and length");

collecting all the fragments to reconstitute the packet (i.e. the datagram is only sent to the next step if the fragment completes the datagram) (p. 27, ¶ 4); and

assembling the fragments in order to reconstitute the packet (p. 27: "if the fragment completes the datagram...then the datagram is sent to the next step in datagram processing").

RFC does not specifically state that the assembling is conducted in a firewalling device. IN analogous art, Malagrino discloses another method for assembling a fragmented packet which occurs in a firewalling device (col. 7, lines 15-20). It would have been obvious to one of ordinary skill in the art to combine the teaching of RFC with Malagrino in order to have a firewall engine of a switch to counter attacks by potential hackers, thereby increasing the security of the network as supported by Malagrino (col. 7, lines 15-20).

9. Referring to claim 2, RFC discloses obtaining source and destination address information for the fragments, and determine if the source information of the fragments matches (i.e. construct BUFID based on source, destination, protocol, and identification and determine if a BUFID has been allocated, and if so, then insert fragment into position in the buffer) (p. 28).

10. Referring to claim 3, RFC determines whether the fragments have a valid checksum (i.e. a fragment is inherently an IP datagram, and as such, behaves

according to the protocol, thereby including, packet error correction procedures) (p. 3, ¶ 2).

11. Referring to claim 4, RFC discloses obtaining packet (i.e. BUFID) and fragment identifiers (i.e. fragment offset, "FO", which provides where in the original datagram the fragment is supposed to go) (p. 28).

12. Referring to claim 5, RFC discloses determining if any fragments needed to reconstitute the packet have not been stored (i.e. the packet is only set to the next step if the fragment completes the datagram, otherwise the reassembly routine gives up control) (p. 27).

13. Referring to claim 10, RFC discloses the invention substantively as described above, however does not disclose overwriting one of the fragments with a subsequently received fragment. In analogous art, Malagrino discloses another IP fragmentation and reassembly method which disclose overwriting a fragment with a subsequently received fragment (i.e. fragments are received into the frame buffer, however since the frame buffer is a finite memory device, it is inherent that eventually data will be overwritten with the reception of new fragmented packets) (col. 7, line 41 to col. 8, line 30).

14. Claims 11-13, and 18 are rejected for similar reasons as stated above.

15. Referring to claims 19 and 20, RFC discloses that the fragments are physically stored in order within the buffer memory reserved (p. 27). It should also be noted that if data is stored

16. Referring to claim 21, RFC discloses that the fragments are IP version 4 packets (page 11: Version "this document describes version 4").

17. Claims 22, and 23 are rejected for similar reasons as stated above.

18. Referring to claim 24, RFC-Malagrino disclose the invention substantively as described in claim 23. RFC-Malagrino do not specifically disclose that the processing unit is in a personal computer, however it has been held obvious to shift location of parts. See *In re Japikse* 86 USPQ 70 (CCPA 1950). By this rationale, one of ordinary skill in the art would find it obvious to move the host processing part of the firewall device of Malagrino to the end user in order to reduce the processing load required by the firewall device.

19. Claims 25-27 are rejected for similar reasons as stated above.

Claims 6-9, and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over RFC in view of Malagrino in view of Mogul et al (Path MTU Discovery, RFC 1191, November 1990) (hereinafter Mogul).

20. Referring to claims 6 and 7, RFC in view of Malagrino discloses the invention substantively as described in claim 5. RFC in view of Malagrino do not specifically disclose determining if the collective fragments exceed a communication length threshold and if so, purging the fragments. In analogous art, Mogul discloses another data transferring system which discloses determining if a datagram is too large to be forwarded without fragmentation (i.e. the packet as a whole exceeds the MTU of the link), the router will discard the packet (p. 3, section 2: "Protocol Overview"). It would have been obvious to one of ordinary skill in the art to combine the teaching of Mogul with RFC-Malagrino in order to reduce the fragmentation reassembly requirements of the host on the network of Malagrino by requiring that the packet be small enough such that reassembly will not be needed by the host, thereby reducing processing on the host.

21. Referring to claims 8 and 9, RFC discloses starting a timer when a fragment is received, and checking whether all the fragments needed to reconstitute the packet have not been received to the firewalling device within a threshold time period (i.e. if the timer runs out, release reassembly resources) (p. 27, ¶ 4).

22. Claims 14-17 are rejected for similar reasons as stated above.

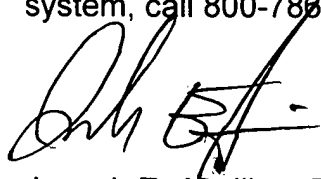
Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'J. Avellino', is written over the printed name of the examiner.

Joseph E. Avellino, Examiner
December 15, 2006